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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/196,338	11/19/1998	SEAN HANDEL	AC980010	9014
29838	7590	07/25/2005	EXAMINER	
OPPENHEIMER WOLFF & DONNELLY, LLP (ACCENTURE)			DURAN, ARTHUR D	
PLAZA VII, SUITE 3300			ART UNIT	
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MINNEAPOLIS, MN 55402-1609			3622	

DATE MAILED: 07/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/196,338

Applicant(s)

HANDEL ET AL.

Examiner

Arthur Duran

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 June 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 10, 11 and 25-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 10, 11, 25-29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

1. Claims 1, 10, 11, 25-29 have been examined.

Response to Amendment

2. The Amendment filed on 6/1/05 is insufficient to overcome the Bergh and Sumita reference.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 10, 11, 25-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bergh (6,112,186) in view of Sumita (5,907,836).

Bergh teaches a method and corresponding apparatus for reporting rating information comprising:

providing a database of user profiles (see at least col.3, lines 25-65); wherein a first subset of users have each submitted product/service rating data stored in the user profile (see at least col. 3, lines 45-67, col. 4, lines 15-20); receiving a request for rating information (see at least col. 6, lines 30-45, col. 14, lines 1-65, col. 33, lines 65-67); identifying a first set of user profiles of users from the first subset of users which have previously submitted rating data for the

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desired product/service (col. 6, lines 30-40, 50-60, col. 8, lines 20-30, col. 10, lines 10-15, col. 12, lines 20-25); mapping the personal information data in the first set of profiles along multiple dimensions to the requesting user profile (col. 8, line 40 – col. 9, line 67, col. 19, lines 40-67); filtering the first set of profiles to create a second set of a predetermined number of profiles which most closely map to the requesting user profile (col. 10, lines 35-45); determining whether the second set of profiles is sufficiently similar to the user profile to satisfy predetermined conformity requirements (col. 10, lines 45 – col. 11, line 65) . Bergh also teaches repeating filtering and determining if the second set of user profiles are not determined to be sufficiently similar, creating a set of rating information and reporting the rating information (col. 10, lines 40-50, col. 11, lines 5-15, col. 16, lines 25-60).

Bergh does not explicitly disclose repeating the filtering and determining steps.

Sumita teaches repeating the filtering and determining steps when the results are not sufficiently similar (col. 56, lines 1-10, 50-55).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have repeated the filtering and determining steps in Bergh as in Sumita. One would have been motivated to do this in order to generate enough ratings for the predetermined number of rating results of Bergh.

Additionally, Bergh also teaches recommending items to user upon request,

“The user 44 can request the system to make artist recommendations at any time, and the system allows the user 44 to tailor their request based on a number of different factors” (col 27, lines 17-20).

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Also, Bergh discloses that, “the profiles collected in those steps are not used to create and report a set of rating information to the requesting user about the product or service of interest as claimed”. Bergh discloses that, “By way of example, a new user 44 accesses the system via the World Wide Web. The system displays a welcome page, which allows the user 44 to create an alias to use when accessing the system” (col 26, lines 55-62), and,

“If the alias supplied by the user is not already in use, then the node verifies whatever demographic data the user supplied (step 708). In embodiments where the user is not prompted to supply any demographic data, this step may be skipped” (col 11, lines 5-15), and,

“The user 44 can request the system to make artist recommendations at any time, and the system allows the user 44 to tailor their request based on a number of different factors” (col 27, lines 17-20).

Hence, Bergh discloses that a user can be a new user, that the user demographic data may or may not be requested, and that the user can request artist recommendations at any time. Since Bergh’s user can request artist recommendations at any time, Bergh’s user can request item recommendations before or regardless of if the user has provided demographic information or item rating information.

Also, Bergh discloses that item rating information can be retrieved:

“Profiles for each item that has been rated by at least one user may also be stored in memory. Each item profile records how particular users have rated this particular item” (col 5, lines 1-3).

Also, Bergh discloses 1) identifying a first set of users who *previously* rated a product/service:

“Profiles for each item that has been rated by at least one user may also be stored in memory. Each item profile records how particular users have rated this particular item. Any data construct that associates ratings (10) given to the item with the user assigning the rating can be used. It is preferred is to provide item profiles as a sparse vector of n-tuples. Each n-tuple contains at least an identifier representing a particular user and an identifier representing the rating that user gave to the item, and it may contain other information, as described above in connection with user profiles. As with user profiles, item profiles may also be stored as an array of pointers. Item profiles may be created when the first rating is given to an item or when the item is first entered into the system. Alternatively, item profiles may be generated from the user profiles stored in memory, by determining, for each user, if that user has rated the item and, if so, storing the rating and user information in the item's profile. . . For example, referring to FIG. 2, item profiled at a and user profile data may be stored as a matrix of values which provides user profile data when read "across," i.e. when rows of the matrix are accessed, and provides item profile data when read "down," i.e. when columns of the matrix are accessed. A data construct of this sort could be provided by storing a set of user n-tuples and a set of item n-tuples. In order to read a row of the matrix a specific user n-tuple is accessed and in order to read a column of the matrix a specific item n-tuple is selected” (col 5, lines 1-30).

Further, note from this passage, “Alternatively, item profiles may be generated from the user profiles stored in memory, by determining, for each user, if that user has rated the item and, if so, storing the rating and user information in the item's profile” (col 5, lines 13-17) and also from Figure 2 (Fig. 2), that each item profile contains a set of user profiles who have rated that item.

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Also, Bergh discloses 2) filtering that first set of user profiles to create a second set of user profiles:

“The data object includes an interface for searching the physical memory. The interface accepts one or more criterion for screening data retrieved from the underlying physical memory. For example, the system may instruct the data object to retrieve all profiles having ratings for a particular item in excess of ‘5’” (col 6, lines 33-39).

Hence, Bergh discloses that users rate products or services, that there is a set of users consisting of the set of users who have rated a certain product, and that this set of users who has rated a certain product can be further filtered by taking only the users with a product ranking greater than a certain rank.

Also, Bergh also discloses that a predetermined number of users in a set can be returned based upon different criteria and that a criteria for selection can be threshold value/L/”conformity requirement”:

“The threshold value, L, can be set to any value which improves the predictive capability of the method. In general, the value of L will change depending on the method used to calculate the similarity factors, the item domain, and the size of the number of ratings that have been entered. In another embodiment, a predetermined number of users are selected from the users having a similarity factor better than L, e.g. the top twenty-five users” (col 10, lines 34-43).

Additionally, Bergh discloses product statistics along several dimensions (Fig. 2; col 6, lines 33-60). Note that records of who profiles an item are kept and also of the different characteristics (age, demographics, other items the user(s) rated) of the users who profile the items. Also, note that the relation between the user and user characteristics and the other user(s)

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and user characteristics and items available can be analyzed and searched in a variety of manners and with a variety of criteria.

Bergh discloses that rating information is returned from the second set of user profiles (col 10, lines 25-61).

Bergh discloses “product/service information from a content database including at least information about pricing from a variety of suppliers rated by the second set of user profiles” (col 27, line 65-col 28, line 2; col 27, lines 6-13). Note that product information includes location of items in a retail establishment and that being able to purchase an item implies providing pricing information and that providing the category that an item belongs in or its performer, in the case of music, is also providing product information.

Bergh discloses multiple suppliers (col 28, lines 3-40). Note that since there are multiple retail establishments, different music from different genres, different websites, etc, that Bergh implies that there can be different stores, producers, content suppliers.

Sumita discloses attaining and developing user profiles (Fig. 2; Fig. 4) and that user profiles can be compared with items (Fig. 12) and that user profiles and preferences can be compared (Fig. 40).

Sumita discloses multiple suppliers (col 18, lines 64-68).

Sumita discloses filtering steps to attain a level of accuracy in the similarity set and/or a predetermined number of items in the similar set (col 4, lines 40-55; col 5, line 63-col 6, line 5). Note that Sumita utilizes and manipulates both a predetermined number in the return set and predetermined conformity requirement.

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Sumita further discloses automatically repeating filtering steps to attain a level of accuracy in the similarity set (col 68, line 6-21; col. 56, lines 1-10, 50-55; col 28, lines 44-67).

The following is in regards to claims 25-29.

Additionally, Bergh discloses mapping of the personal information data based on pattern matching (col 6, line 33-col 7, line 7; col 4, lines 51-55; col 12, lines 15-31).

Bergh discloses that the user can have multiple profiles and that these profiles can be based on different domains or intentions of the user (col 3, lines 25-40) and also different interfaces dependent upon domains (col 28, lines 4-17).

Bergh does not explicitly disclose that the predetermined number and/or threshold value can be adjusted to affect the return set.

However, Bergh discloses that both variables of a predetermined number of users in a set and a threshold value/L/"conformity requirement" are involved in the determining of the return set:

"The threshold value, L, can be set to any value which improves the predictive capability of the method. In general, the value of L will change depending on the method used to calculate the similarity factors, the item domain, and the size of the number of ratings that have been entered. In another embodiment, a predetermined number of users are selected from the users having a similarity factor better than L, e.g. the top twenty-five users" (col 10, lines 34-43).

Additionally, note that Sumita utilizes and manipulates both a predetermined number in the return set and a threshold of similarity/predetermined conformity requirement in order to affect the return set:

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“(43) According to the present invention, various retrieving conditions or the threshold of the similarities are dynamically changed whenever the retrieval is performed or in accordance with results of plural and successive retrievals. Thus, the retrieving conditions or the threshold of the similarities can be allowed to automatically follow the change in the contents of the article which is being supplied. As a result, an appropriate article can always be presented to the user without a necessity for the user to change the specification of the retrieving conditions (col 5, line 63-col 6, line 5);

(522) (4) In accordance with the balance of the contraction with the user, the number of document to be retrieved is decreased to only the upper ranked documents” (col 56, liners 33-38);

(539) Hitherto, the outputs of the result of the retrieval have been decreased such that the results of the retrieval are arranged in the descending order in terms of the similarities to output upper ranked articles in a case where the number of outputs has been specified or to output documents of a type having the similarity greater than a specified threshold, which is the lower limit value of the similarity, in a case where the threshold has been specified (col 57, lines 42-50);

(540) In the case where the number of outputs is specified, only articles of a type having a great similarity and determined to be directly related are output even if a multiplicity of articles relating to the specified topic exist. In the case where the threshold is specified, only articles having a certain extent of relativity are output even if a small number of articles relating to the specified topic exists” (col 57, lines 50-58).

Sumita further discloses increasing or decreasing the predetermined number returned or the threshold of similarity/"conformity requirement" (Fig. 110-Fig. 113 and below) :

"FIG. 110 is a flow chart showing a process for decreasing the specified number of documents to be output in the apparatus according to the thirteenth embodiment;

FIG. 111 is a flow chart showing a process for increasing the specified number of documents to be output in the apparatus according to the thirteenth embodiment;

FIG. 112 is a flow chart showing a process for reducing the specified threshold of similarities in the apparatus according to the thirteenth embodiment;

FIG. 113 is a flow chart showing a process for enlarging the specified threshold of similarities in the apparatus according to the thirteenth embodiment" (col 13, lines 20-33).

Note that in these citations above concerning Fig. 110-Fig. 113 that the increasing or decreasing of the number returned or the threshold of similarity all occurs within the same thirteenth embodiment. Therefore, it would be obvious to one skilled in the art that either or both of the variables can be adjusted in order to affect the return set.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made that Bergh's predetermined number and/or threshold value/L/"conformity requirement" can be adjusted to affect the return set. One would have been motivated to do this in order to better attain desirable return sets in terms of number and similarity.

Hence, the combination of Bergh and Sumita renders obvious the Applicant's claimed features such that the predetermined conformity requirement is automatically relaxed and the predetermined number of user profiles is selectively relaxed.

Response to Arguments

4. Applicant's arguments with respect to claims 1, 10, 11, 25-29 have been considered but are not found persuasive.

On page 7 of the Applicant's Amendment dated 6/1/05, Applicant states that "the claims have been amended such that two variables are relaxed for repetition of the filtering and determining steps set for in the claim. Neither Bergh nor Sumita teach or suggest this feature".

Applicant further discloses that "and the predetermined number of user profiles is selectively relaxed" and "wherein the predetermined conformity requirement is automatically relaxed and the predetermined number of user profiles is selectively relaxed".

Examiner notes that it is the Applicant's claims as stated in the Applicant's claims that are being rejected with the prior art. Also, Examiner notes that claims are given their broadest reasonable construction. See *In re Hyatt*, 211 F.3d 1367, 54 USPQ2d 1664 (Fed. Cir. 2000).

Examiner notes that while specific references were made to the prior art, it is actually also the prior art in its entirety and the combination of the prior art in its entirety that is being referred to. Also, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Also, as noted in the rejection above, Bergh discloses that both variables of a predetermined number of users in a set and a threshold value/L/"conformity requirement" are involved in the determining of the return set:

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“The threshold value, L, can be set to any value which improves the predictive capability of the method. In general, the value of L will change depending on the method used to calculate the similarity factors, the item domain, and the size of the number of ratings that have been entered. In another embodiment, a predetermined number of users are selected from the users having a similarity factor better than L, e.g. the top twenty-five users” (col 10, lines 34-43).

Please also note that the additional citations added below have also been added to the rejection above starting with the section that states, “Additionally, note that Sumita utilizes and manipulates both. . .”.

Additionally, Sumita discloses the utilization and manipulation of both a predetermined number in the return set and a threshold of similarity/predetermined conformity requirement in order to affect the return set:

“(43) According to the present invention, various retrieving conditions or the threshold of the similarities are dynamically changed whenever the retrieval is performed or in accordance with results of plural and successive retrievals. Thus, the retrieving conditions or the threshold of the similarities can be allowed to automatically follow the change in the contents of the article which is being supplied. As a result, an appropriate article can always be presented to the user without a necessity for the user to change the specification of the retrieving conditions (col 5, line 63-col 6, line 5);

(522) (4) In accordance with the balance of the contraction with the user, the number of document to be retrieved is decreased to only the upper ranked documents” (col 56, liners 33-38);

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(539) Hitherto, the outputs of the result of the retrieval have been decreased such that the results of the retrieval are arranged in the descending order in terms of the similarities to output upper ranked articles in a case where the number of outputs has been specified or to output documents of a type having the similarity greater than a specified threshold, which is the lower limit value of the similarity, in a case where the threshold has been specified (col 57, lines 42-50);

(540) In the case where the number of outputs is specified, only articles of a type having a great similarity and determined to be directly related are output even if a multiplicity of articles relating to the specified topic exist. In the case where the threshold is specified, only articles having a certain extent of relativity are output even if a small number of articles relating to the specified topic exists" (col 57, lines 50-58).

Sumita further discloses increasing or decreasing the predetermined number returned or the threshold of similarity/"conformity requirement" (Fig. 110-Fig. 113 and below) :

"FIG. 110 is a flow chart showing a process for decreasing the specified number of documents to be output in the apparatus according to the thirteenth embodiment;

FIG. 111 is a flow chart showing a process for increasing the specified number of documents to be output in the apparatus according to the thirteenth embodiment;

FIG. 112 is a flow chart showing a process for reducing the specified threshold of similarities in the apparatus according to the thirteenth embodiment;

FIG. 113 is a flow chart showing a process for enlarging the specified threshold of similarities in the apparatus according to the thirteenth embodiment" (col 13, lines 20-33).

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Note that in these citations above concerning Fig. 110-Fig. 113 that the increasing or decreasing of the number returned or the threshold of similarity all occurs within the same thirteenth embodiment. Therefore, it would be obvious to one skilled in the art that either or both of the variables can be adjusted in order to affect the return set.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made that Bergh's predetermined number and/or threshold value/L" conformity requirement" can be adjusted to affect the return set. One would have been motivated to do this in order to better attain desirable return sets in terms of number and/or similarity.

Hence, the combination of Bergh and Sumita renders obvious the Applicant's claimed features such that the predetermined conformity requirement is automatically relaxed and the predetermined number of user profiles is selectively relaxed.

In conclusion, the combination of Bergh and Sumita renders obvious all the Applicant's claimed features.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period

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will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Arthur Duran whose telephone number is (571) 272-6718. The examiner can normally be reached on Mon- Fri, 8:00-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eric Stamber can be reached on (571) 272-6724. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'Arthur Duran', is positioned above the printed name.

Arthur Duran
Patent Examiner
7/19/05